

Applicant: Martin AMERSON, et al.
Serial No. 1,000,000
Filed: July 1, 1961
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REMARKS

Claims 1-4 were pending and are presently being examined in this application.

Applicants have attached a correcting version of the changes made to the Abstract by this Amendment. The attached pages are captioned "Version With Markings for New Abstract."

Sections 3 and 4 of the Office Action objected to the specification because the Abstract is substantially a copy of the claims.

Applicants hereinabove have amended the Abstract to describe the substance of the invention as suggested in the Office Action by rewriting the Abstract in narrative form. Accordingly, no new matter has been introduced by this Abstract.

In view of the remarks above and the amendment of the Abstract, applicants respectfully request that the objection to the Abstract be reconsidered and withdrawn.

Section 5 of the Office Action rejected claims 1-3, 5-13 and 15-17 under 35 U.S.C. § 102 as being anticipated by U.S. Patent No. 6,328,813 to Heintzel. "Heintzel". More specifically, the Office Action stated that because the Heintzel disclosed: (1) a CCD which captured an image of a scene in two dimensions; (2) utilized a single optical system for the exposure of the CCD; and (3) the image of the scene was projected onto a single plane, the claims of the present application were anticipated. The Office Action also stated that the Heintzel disclosed: (1) with respect to claim 1, a single optical system, by which light from a scene is projected onto a single plane; and (2) with respect

Applicant: KODAK ALBANY, INC.
Serial No. 2,771,111
Filed: March 1, 1957
Inventor:

Applicant respectfully submits that unlike the He Patent, the present invention as recited in all the independent claims, that is, claims 1, 10, 11, and 12, relates to means and devices for recording a bar code by: (1) acquiring a sequence of two-dimensional images covering portions of the bar code; (2) detecting bar code edges in the sequence of images; (3) determining, based on the edges, the most probable sequence of displacements between the images; and (4) reconstructing the bar code using the sequence of the most probable sequence of displacements of the images.

In contrast, the He Patent processes a bar code by: (1) generating a one-dimensional electrical and optical signal, or a digital version thereof, representative of the light reflected from the bar code; (2) determining a measure of the analog scan signal is from a brightness waveform derived from the one-dimensional scan signal; (3) selecting a procedure for further processing based on the amount the analog scan signal is blurred; (4) determining a set of positions of transitions in the bar code, and (5) interpreting this data as a bar code.

In other words, among other differences, the He Patent utilizes a one-dimensional analog signal to process a bar code with at least reconstructing the bar code from multiple images whereas the subject invention as recited in the independent claims utilizes two-dimensional images to reconstruct the bar code. For example, FIG. 1 of the subject invention, which is presently interpreting the bar code, shows a sequence of images of the bar code which are being processed. In the He Patent, the signal is derived from an analog scan signal, which is then processed to produce a digital bar code. In the subject invention, the bar code is reconstructed from a single image of the bar code, which is then processed to produce a digital bar code.

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analysis system 11 that processed a bar code image 12 representing a bar code symbol." (emphasis added). Thus, unlike the subject invention recited in the independent claims, the He Patent does not need to determine relative positions of a sequence of images of a bar code, and indeed fails to teach or suggest doing so. For at least this reason the He Patent does not anticipate any of the independent claims.

Claims 2-3, 9-11, and 15 depend, either directly or indirectly, on one of the independent claims. Accordingly, because a claim which depends on another claim is subject to all the limitations of that other claim, applicants respectfully submit that claims 2-3, 9-11 and 15 are not anticipated by the He Patent for at least the same reasons discussed above with respect to the independent claims.

In view of the remarks above, applicants respectfully request that the rejection of claims 1-3, 5-13 and 15-17 as being anticipated by the He Patent be reconsidered and withdrawn.

Section C of the Office Action rejected claim 4 under 35 U.S.C. §103(a) as being unpatentable over the He Patent in view of U.S. Patent No. 2,267,293 to Dwinell et al. ("Dwinell Patent"). More specifically, the Office Action stated that while the He Patent does not teach or suggest reading and processing a bar code it does state that the applicant's system, the Dwinell Patent, does so. Accordingly, the Office Action concluded that the applicant's system is more efficient and less expensive than, and an addition to the He Patent would be an obvious extension by one of ordinary skill in the art.

Claim 4 depends on claim 1 which depends on claim 1. Because

Applicant: Margaret ANNEBANK H. et al.
Serial No. 87-21,111
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1 which are missing from the He Patent, applicants respectfully submit that claim 4 is not unpatentable over the He Patent in view of the Dwinell Patent for at least the same reasons discussed above with respect to the independent claim 1.

In view of the remarks above, applicants respectfully request that the rejection of claim 4 as being unpatentable over the He Patent in view of the Dwinell Patent be reconsidered and withdrawn.

Section 2 of the Office Action rejected claim 14 under 35 U.S.C. §103(a) as being unpatentable over the He Patent in view of U.S. Patent No. 5,546,495 to Plesko ("Plesko Patent"). More specifically, the Office Action stated that while the He Patent fails to teach or suggest a pen-type reading/scanning device, the Plesko Patent discloses such a device. Accordingly, the Office Action concludes that one of ordinary skill in the art would combine the Plesko teaching with the He Patent device to provide user comfort, and that the subject invention's use of a pen is a mere design choice.

Claim 14 depends on claim 13. Because a claim which depends on another claim is subject to all the limitations of that other claim and because the Plesko Patent fails to teach or suggest the elements recited in independent claim 13 which are missing from the He Patent, applicants respectfully submit that claim 14 is not unpatentable over the He Patent in view of the Plesko for at least the same reasons discussed above with respect to independent claim 13.

In view of the remarks above, applicants respectfully request that the rejection of claim 14 as being unpatentable over the He Patent in view of the Plesko Patent be reconsidered and withdrawn.

Section 2 of the Office Action stated that claim 12

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error function in terms of the speed of the reading device.

Applicants note, while it is true that the Office Action stated that claim 1 is allowable, Section 1 of the Office Action rejected claim 1 as being anticipated by the Heister. Because the rejection is based on the lack of the all-wiability of an independent claim 1, and in view of the remarks above with respect to independent claim 1, in which claim 1 depends, applicants respectfully request that the rejection of claim 10 as being anticipated by the Heister be reconsidered and withdrawn.

In view of the amendment to the abstract and the remarks above, applicants respectfully request that the rejections and objections raised in the Office Action be reconsidered and withdrawn, and a limit be allowed on claims 1-10.

If a telephone interview would be of assistance in advancing prosecution of the subject application, applicants' undersigned attorney invites the Examiner to telephone him at the number provided below.

No fee, other than the fees for the three-month extension of time, is being charged in connection with the filing of this Amendment. However, if any such fees are required, authorization is hereby given to make the amount of any such fee to deposit Account No. ...

Very truly yours,

[Signature]
Edward A. Miller
Registered Professional Engineer
Applicant's Representative
...
...

1. This application is in compliance with the provisions of the Patent Act of 1952, as amended, and the rules and regulations thereunder, and is hereby filed for the purpose of obtaining a patent thereon.

Applicant: Marko AMERSON, N. H. L.
Serial No.: 44-11,4

44-11/4/NHZ/RSM

Version With Markings To Show Changes

In this Version, text being deleted is ~~struck out~~ and surrounded by square brackets "[]" and text being inserted is underlined.

In the Specification:

The abstract has been presented on a separate sheet as follows:

The present invention relates to ~~[a method]~~methods and devices for recording a bar code~~], which consists of a plurality]~~ of parallel lines of varying thickness. The ~~[method comprises the steps of]~~methods and devices operate by: (a) capturing, by means of a reading device, a sequence of two-dimensional images of ~~[at least]~~ portions of the bar code during moving of the reading device across the ~~[same]~~barcode; (b) detecting the edges of the bar code in ~~[at least]~~ a subset of the images; (c) determining, for the edges of ~~[at least]~~ a subset of the detected images, possible displacements in relation to the edges of a preceding image; (d) determining the most probable sequence of displacements for the sequence of images; and (e) reconstructing the bar code by means of [said]the sequence of images and [said]the most probable sequence of displacements. This method allows reliable detection of a bar code in a noisy environment and is particularly adapted for use in a high speed data processing system.